

ABSTRACT

The invention relates to a computer system and method for simulating transport phenomena in a complex system. The computer system comprises a logic interface
5 that enables a user of the computer system to dynamically construct logic to
customize simulation of the physical system, a means for converting the constructed
logic into corresponding object-oriented code, a means for integrating the object-
oriented code with the main simulation system which comprises a simulation data
model and simulation algorithms, resulting in an integrated simulation system, and a
10 means for executing the integrated simulation system.